Response to Comments
Comment Deadline: February 28, 2022 by 5:00 p.m.

Tentative Waste Discharge Requirements (WDRs) Order R7-2022-0008
Mission Springs Water District, Alan Horton Wastewater Treatment Plant

Comment Letter #	Date	Commenter	Affiliation
MSWD-1	February 28, 2022	Arden Wallum	General Manager, Mission Springs Water District (MSWD)

Unless otherwise noted, changes identified in the staff responses to comments below are incorporated into the Revised Tentative WDRs Order dated March 21, 2022.

Comments provided by the Discharger came in the form of an Adobe PDF Letter attached to an email.

Unless otherwise specified, all page citations are to the WDRs Order.

MSWD Comment	MSWD Comment	Response
Comment 1.1 Finding 15 (p. 4), Finding 30.a (p. 8), Finding 30.b (p. 8)	Using groundwater and Horton WWTP effluent monitoring data provided by the District, Rincon was unable to reproduce the aforementioned average total nitrogen concentrations in groundwater monitoring wells MW-1, MW-2, and MW-3. For the time period of January 2018 through June 2020, Rincon calculated the average total nitrogen concentrations in MW-1, MW-2, and MW-3 to be 3.7 mg/L, 5.5 mg/L, and 5.6 mg/L, respectively. In addition, the total nitrogen concentration reported for MW-3 in December 2019 was 28 mg/L, which is nearly double the total nitrogen concentration in Horton WWTP effluent…this anomalous data point does not appear to be a result of Horton WWTP discharge; it is unclear if this was considered by the Regional Water Board in calculating total nitrogen averages in groundwater.	**The findings have been amended to address this issue.** For consistency and to compare the same data set for all constituents, the time frame of January 2018 through June 2021 was used to compute averages. For total nitrogen in the groundwater monitoring wells, there was a staff oversight in the data that included a data point that was outside of the representative time period to produce the averages (monitoring is done on a quarterly basis; the first sampling event was February 2018, and the last sampling event included should have been May 2021; the sampling data from July 2021 was mistakenly included). Staff have corrected the analysis and have omitted both the results from the July 2021 sampling event, as well as removed the outlier result of 28 milligrams per liter (mg/L) from MW-3. The following revisions are reflected in the Revised Tentative WDRs Order dated March 21, 2022: **Finding 15** (p. 4) has been revised to clarify that the period extends from January of 2018 through June of 2021 (the months were not previously specified in the finding). **Table 2** (p. 4) has also been amended as follows: • Depth to groundwater for MW-3 (downgradient) was increased from 167.5 to 167.6 feet below ground surface. • TDS was reduced from 664 mg/L to 660 mg/L for MW-1 (upgradient); reduced from 685 mg/L to 683 mg/L for MW-2 (downgradient); and reduced from 725 mg/L to 723 mg/L for MW-3 (downgradient). • Total Nitrogen was reduced from 3.41 mg/L to 3.22 mg/L for MW-1 (upgradient); increased from 6.21 mg/L to 6.37 mg/L for MW-2 (downgradient); and reduced from 6.58 mg/L to 5.13mg/L for MW-3 (downgradient).

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		• Nitrate as Nitrogen was increased from 2.01 mg/L to 2.03 mg/L for MW-1 (upgradient); increased from 6.14 mg/L to 6.29 mg/L for MW-2 (downgradient); and increased from 6.54 mg/L to 6.61 mg/L for MW-3 (downgradient). • Sulfate was reduced from 222 mg/L to 221 mg/L for MW-1 (upgradient); increased from 260.7 mg/L to 263.6 mg/L for MW-2 (downgradient); and increased from 277.5 mg/L to 280.7 mg/L for MW-3 (downgradient). • Chloride was reduced from 75.5 mg/L to 75.1 mg/L for MW-1 (upgradient); reduced from 74.8 mg/L to 74.6 mg/L for MW-2 (downgradient); and increased from 81.7 mg/L to 81.9mg/L for MW-3 (downgradient). • Fluoride was increased from 0.433 mg/L to 0.437 mg/L for MW-2 (downgradient); and reduced from 0.844 mg/L to 0.827 mg/L for MW-3 (downgradient). **Finding 30.a** (p. 8) has been amended to indicate that the total nitrogen in groundwater is 3.22 mg/L at MW-1 [previously 3.41 mg/L], while the downgradient groundwater total nitrogen concentrations are 6.37 mg/L at MW-2 [previously 6.21 mg/L] and 5.13 mg/L at MW-3 [previously 6.58 mg/L]. **Finding 30.b** (p. 8) has been revised to indicate that "Background (upgradient) groundwater TDS is 660 mg/L at MW-1 [previously 664.1 mg/L] while downgradient groundwater TDS concentrations are 683 at MW-2 [previously 685.5 mg/L], and 723 mg/L at MW-3 [previously 725.8 mg/L]…."

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Comment 1.2 Finding 30.a (p. 8)	Total nitrogen concentrations in Horton WWTP effluent and groundwater do not appear correlated, and there is no justification for implementation of an interim effluent limitation which will place undue financial burden on the District without a clear understanding of potential sources, trends, and potential benefit to groundwater beneficial uses.	**No changes to effluent limitations but clarification added to frequency in section A.5 (p. 11).** The implementation of an interim effluent limitation on total nitrogen is consistent with California Code of Regulations, Title 22, which sets a Primary Maximum Contaminant Level (MCL) for nitrate plus nitrite as nitrogen of 10 mg/L. The Regional Water Board's efforts to protect ground water quality include managing salts and nutrients to a level consistent with water quality objectives used to protect the beneficial uses. The Regional Water Board understands that there may be other potential sources, which is why a Special Provision to require a nitrogen study is included in this Order to achieve a final average monthly effluent limitation of 10 mg/L or less for total nitrogen, as best practicable treatment and control (BPTC). While this study is completed, an interim effluent limit for total nitrogen of 20 mg/L is proposed. This interim limit was calculated based on monthly data reported from January 2018 through June 2021, which had an average of 15.4 mg/L. The interim effluent limit will place no financial burden on the District, assuming the WWTP continues to perform as it currently does. Although the Effluent Limitation of 20 mg/L for Total Nitrogen (§ A.5, p. 11) remains unchanged, the provision has been amended to clarify that compliance will be determined based on a monthly average: "The Total Nitrogen concentration of the effluent shall not exceed the interim *monthly average* effluent limit of 20 mg/L." The change is reflected in the Revised Tentative WDRs Order dated March 21, 2022.

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Comment 1.3 Special Provisions, § G.2 (p. 15)	The District requests 12 months to complete the Nitrogen Control Strategy Technical report.	As reflected in the Revised Tentative WDRs Order dated March 21, 2022, this request has been granted.
Comment 2.1 Finding 30.b (p. 8), MRP, § D.1 (p. 5)	The District requests that an alternative method be used to identify background water quality, such as a weighted average of all domestic wells. The Tentative WDRs require that the District sample their domestic water supply from an onsite potable water outlet to better represent background water quality and assess their total dissolved solids (TDS) incremental addition. The Horton WWTP domestic water supply source is not representative of background water quality. More specifically, over 90% of the domestic water used and delivered to Horton WWTP for treatment is produced from wells that do not serve domestic water to the Horton WWTP.	**Requested changes accepted with clarifications and additional revisions.** Finding 30.b makes the point that as currently monitored, the domestic water supply data that are provided by MSWD are collected at one production well (Well 29) that shows an average concentration of 615 mg/L. For the same time period, treated wastewater discharged from the WWTP had an average TDS concentration of approximately 620 mg/L. Based on staff experience and expertise, an incremental TDS increase of only 5 mg/L after domestic water usage by the community is not plausible. The municipal water supply sample collection method for TDS is not representative of the actual TDS concentration in the water supply distributed to the community. Samples should be collected at a location where the water supply from all source wells has been blended (e.g., at domestic water treatment and distribution facility). This will provide a more accurate and representative assessment of TDS in the water supply to the community. Finding 30.b (p.8): "This Order requires the Discharger to sample their domestic water supply from an onsite potable water outlet to better represent background water quality and assess their TDS incremental addition." This does not mean that the domestic water supply sample for TDS should be collected from an onsite potable water

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		outlet at the Alan Horton WWTP. However, to clarify this misunderstanding, staff propose the following changes: Finding 30.b: "This Order requires that the Discharger sample the domestic water supply at a location or in a manner that is representative of actual TDS concentrations of domestic water distributed to the community (i.e., at the domestic water treatment and distribution facility where water supply from the many source wells has been blended, or calculate the TDS concentrations using flow-weighted concentrations from the source wells used for blending." Domestic Water Supply Monitoring, D.1, Pg. MRP-5: "The domestic water supply shall be monitored *at a location or in a manner that is representative of actual TDS concentrations of domestic water distributed to the community* according to the following schedule:" The changes are reflected in the Revised Tentative WDRs Order dated March 21, 2022.
Comment 2.2 Finding 30.b (p. 8)	The Tentative WDRs also propose an average monthly interim effluent limit for TDS of 650 mg/L based on the Regional Water Board's evaluation of TDS concentrations in groundwater at MW-1, MW-2, and MW-3 for the period of January 2018 through June 2021.	**No changes.** The interim effluent limit of 650 mg/L was not based on the TDS concentrations in groundwater. The Regional Water Board used the average TDS concentration in the treated wastewater discharged from January 2018 through June 2021, which was approximately 620 mg/L. A buffer was added to the TDS effluent average to determine an appropriate interim TDS limit that is based on plant performance while also being protective of water quality.

Comment 2.3 Finding 30.b (p. 8), Effluent Limitations § A.4 (p. 11)	The District requests that the interim TDS limit be increased to 737 mg/L while the Coachella Valley Salt and Nutrient Management Plan is completed and the best regional solution for managing TDS is implemented.	**The requested TDS interim effluent limitation of 737 mg/L has not been accepted; a lower effluent limitation of 665 mg/L will be incorporated instead.** Staff acknowledges MSWD's commitment to the SNMP process. However, an interim limit of 737 mg/L would be inconsistent with the State Water Board's Antidegradation Policy, Resolution 68-16. The request for a TDS 737 mg/L average monthly effluent limit of was made on the following basis: the median incremental addition of 265 mg/L (the typical incremental addition of dissolved salts from domestic water usage ranges from 150 to 380 mg/L) to the 5-year weighted average background water quality in the Mission Creek Subbasin which is 472 mg/L. However, the interim effluent limit of 650 mg/L was not based on the TDS concentrations in groundwater, but based on plant performance average TDS in the effluent from January 2018 through June 2021. Staff acknowledge that completion and implementation of the SNMP will provide the rationale for setting a final effluent limit for the TDS in the discharge. However, an interim limit that is protective of groundwater quality and consistent with the observed characteristics of the discharge is proposed until then. The Special Provisions of the Order also include a TDS impact Evaluation Report and Work Plan for the Discharger to be able to assess groundwater quality and conditions for the future establishment of an effluent limitation for TDS that considers relevant factors. As a concession, staff propose an interim limit of 665 mg/L, with the following proposed changes: Finding 30.b (p. 8): "As a result, this Order provides an average monthly interim effluent limit for TDS of *665* mg/L."

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		Effluent Limitations, § A.4 (p. 11): "The TDS concentration of the effluent shall not exceed the interim *monthly average* effluent limit of *665* mg/L." The changes are reflected in the Revised Tentative WDRs Order dated March 21, 2022.
Comment 2.4 Special Provisions § G.1 (p. 14)	The District requests 12 months to complete the TDS Impact Evaluation Report and Work Plan.	As reflected in the Revised Tentative WDRs Order dated March 21, 2022, this request has been granted.
Comment 3 Finding 4 (p. 1), Finding 6 (p. 2), Finding 14 (p. 4)	General Corrections: The District is removing the existing channel grinder and four influent pumps. The headworks odor control system is not listed in the facility description, please add. Groundwater flow is generally northwest to southeast direction in the Mission Creek Subbasin.	As reflected in the Revised Tentative WDRs Order dated March 21, 2022, Findings 4, 6 and 14 have been revised to read as follows: **Finding 4** (p.1): "The recent and proposed changes consist of (1) Removing the existing channel grinder *and four influent* pumps and installing…" **Finding 6** (p. 2): "Including the proposed modifications, the preliminary treatment system consists of four chopper pumps, *an odor control system,* one channel…" **Finding 14** (p. 4): "Regional groundwater flow in the area is generally from north*west* to south*east in the Mission Creek Subbasin.*"